

1      Amendments to the claims:

2

3            4. (Currently amended) A simplified "T" interchange design for  
4        ~~an intersection of a four lane expressway with a two lane highway,~~  
5        ~~said interchange design~~ comprising:

6            a first road surface with traffic moving in a left to right  
7        direction, said first road surface having at least two lanes for  
8        traffic moving in said left to right direction;

9            a second road surface for traffic moving in a right to left  
10       direction, said second road surface having at least two lanes for  
11       traffic moving in said right to left direction;

12          an open space between said first road surface and said second  
13       road surface, said open space substantially forming a median;

14          a third road surface for traffic intending to connect onto  
15       ~~intersect~~ said first road surface and said second road surface;  
16       said third road surface having at least one lane for traffic moving  
17       toward said first road surface and said second road surface; said  
18       third road surface having at least one lane for traffic moving away  
19       from said first road surface and said second road surface; said  
20       third road surface having a terminated end that is located within  
21       said median between said first road surface and said second road  
22       surface;

23          a bridge located on said first road surface substantially  
24       where said third road surface intersects said first road surface,  
25       said bridge configured so that vehicles traveling on said first

1 road surface pass over said bridge, and above said third road  
2 surface; said bridge configured so that vehicles traveling on said  
3 third road surface pass under said bridge, and under said first  
4 road surface;

5 an exit ramp from said second road surface onto said median,  
6 said exit ramp being connected to said terminated end of  
connecting onto said third road surface;

7 ~~whereby a "simplified "T" interchange design " is provided~~  
8 ~~that provides many benefits; most importantly, all the hazardous~~  
9 ~~elements of existing expressway "T" intersections are eliminated,~~  
10 ~~the results will be the elimination of all future serious and~~  
11 ~~fatal accidents; also, the new "T" interchange design will be very~~  
12 ~~safe for vehicles passing through the new interchange from any~~  
13 ~~direction as vehicles are never required to cut across lanes of~~  
14 ~~high speed traffic when making transitions between the two lane~~  
15 ~~highway and the four lane expressway; and any vehicles passing in~~  
16 ~~front of one another would at most be traveling at only a few miles~~  
17 ~~an hour, thus, any accidents would be minor; additionally, "on~~  
18 ~~ramps" and "off ramps" can be provided so that vehicle making~~  
19 ~~transitions are able to get up to speed before merging with high~~  
20 ~~speed traffic; also, the new simplified interchange design will not~~  
21 ~~be confusing for vehicles passing through the interchange from any~~  
22 ~~direction even if the interchange is built on a curving expressway,~~  
23 ~~and the interchange would very inexpensive to build when compared~~

1 to the cost to build a conventional interchange, as the simplified  
2 design for a "T" interchange can built for approximately 20% to  
3 25% of the cost of a traditional interstate interchange thereby  
4 saving government transportation departments millions of dollars,  
5 additionally, the simplified "T" interchange design may only take  
6 up 20% to 25% of the space of a conventional expressway freeway  
7 interchange, thereby saving money and land for other uses.

8

9 5. (Currently amended) The simplified "T" interchange design  
10 of claim 4 including an on ramp connecting from said terminated end  
11 of said third road surface, passing through said median, and  
12 connecting onto said second road surface.

13

14 6. (Currently amended) A simplified "T" interchange design ~~for~~  
15 ~~an intersection of a four lane expressway with a two lane highway,~~  
16 ~~said interchange design comprising:~~

17 a first road surface with traffic moving in a left to right  
18 direction, said first road surface having at least two lanes for  
19 traffic moving in the left to right direction;

20 a second road surface for traffic moving in a right to left  
21 direction, said second road surface having at least two lanes for  
22 traffic moving in the right to left direction;

23 an open space between said first road surface and said second  
24 road surface, said open space substantially forming a median;

1       a third road surface for traffic intending to connect onto  
2 intersect said first road surface and said second road surface;  
3 said third road surface having at least one lane for traffic moving  
4 toward said first road surface and said second road surface; said  
5 third road surface having at least one lane for traffic moving away  
6 from said first road surface and said second road surface; said  
7 third road surface having a terminated end that is located within  
8 said median between said first road surface and said second road  
9 surface;

10      a bridge located on said third road surface substantially  
11 where said third road surface intersects said first road surface,  
12 said bridge configured so that vehicles traveling on said first  
13 road surface pass under said bridge, and, under said third road  
14 surface, said bridge configured so that vehicles traveling on said  
15 third road surface pass over said bridge, and over said first road  
16 surface;

17      whereby a "simplified "T" interchange design " is provided  
18 that provides many benefits; most importantly, all the hazardous  
19 elements of existing expressway "T" intersections are eliminated,  
20 the results will be the elimination of all future serious and  
21 fatal accidents; also, the new "T" interchange design will be very  
22 safe for vehicles passing through the new interchange from any  
23 direction as vehicles are never required to cut across lanes of  
24 high speed traffic when making transitions between the two lane

1     highway and the four lane expressway, and any vehicles passing in  
2     front of one another would at most be traveling at only a few miles  
3     an hour, thus, any accidents would be minor; additionally, "on  
4     ramps" and "off ramps" can be provided so that vehicle making  
5     transitions are able to get up to speed before merging with high  
6     speed traffic; also, the new simplified interchange design will not  
7     be confusing for vehicles passing through the interchange from any  
8     direction even if the interchange is built on a curving expressway,  
9     and the interchange would very inexpensive to build when compared  
10    to the cost to build a conventional interchange, as the simplified  
11    design for a "T" interchange can built for approximately 20% to  
12    25% of the cost of a traditional interstate interchange thereby  
13    saving government transportation departments millions of dollars,  
14    additionally, the simplified "T" interchange design may only take  
15    up 20% to 25% of the space of a conventional expressway freeway  
16    interchange, thereby saving money and land for other uses.

17  
18    7. (Previously presented) The simplified "T" interchange design of  
19    claim 6 including an exit ramp from said first road surface  
20    connecting onto said third road surface.

21  
22    8. (Previously presented) The simplified "T" interchange design of  
23    claim 6 including an exit ramp from said third road surface  
24    connecting onto said first road surface.

1       9. (Currently amended) The simplified "T" interchange design of  
2       claim 6 including an exit ramp from said second road surface onto  
3       said median, said exit ramp connecting onto said terminated end of  
4       said third road surface.

5

6       10. (Currently amended) The simplified "T" interchange design of  
7       claim 6 including an on ramp connecting from said terminated end  
8       of said third road surface, passing through said median, and  
9       connecting onto said second road surface.

10

11      11. (Currently amended) A simplified "T" interchange design for an  
12       intersection of a four lane expressway with a two lane highway,  
13       said interchange design comprising:

14            a first road surface with traffic moving in a left to right  
15       direction, said first road surface having at least two lanes for  
16       traffic moving in said left to right direction,

17            a second road surface for traffic moving in a right to left  
18       direction, said second road surface having at least two lanes for  
19       traffic moving in said right to left direction ,

20            an open space between said first road surface and said second  
21       road surface, said open space substantially forming a median;

22            a third road surface for traffic intending to connect onto  
23       intersect said first road surface and said second road surface;  
24       said third road surface having at least one lane for traffic moving

1 toward said first road surface and said second road surface; said  
2 third road surface having at least one lane for traffic moving away  
3 from said first road surface and said second road surface; said  
4 third road surface having a terminated end that is located within  
5 said median between said first road surface and said second road  
6 surface;

7 a bridge located on said first road surface substantially  
8 where said third road surface intersects said first road surface,  
9 said bridge configured so that vehicles traveling on said first  
10 road surface pass over said bridge, and over said third road  
11 surface; said bridge configured so that vehicles traveling on said  
12 third road surface pass under said bridge, and under said first  
13 road surface;

14 an exit ramp from said second road surface onto said median ,  
15 said exit ramp connecting onto said terminated end of said third  
16 road surface;

17 an on ramp connecting from said terminated end of said third  
18 road surface, passing through said median, and connecting onto said  
19 second road surface;

20 ~~whereby a "simplified "T" interchange design " is provided~~  
21 ~~that provides many benefits, most importantly, all the hazardous~~  
22 ~~elements of existing expressway "T" intersections are eliminated,~~  
23 ~~the results will be the elimination of all future serious and~~  
24 ~~fatal accidents; also, the new "T" interchange design will be very~~

1 safe for vehicles passing through the new interchange from any  
2 direction as vehicles are never required to cut across lanes of  
3 high speed traffic when making transitions between the two lane  
4 highway and the four lane expressway; and any vehicles passing in  
5 front of one another would at most be traveling at only a few miles  
6 an hour, thus, any accidents would be minor; additionally, "on  
7 ramps" and "off ramps" can be provided so that vehicle making  
8 transitions are able to get up to speed before merging with high  
9 speed traffic; also, the new simplified interchange design will not  
10 be confusing for vehicles passing through the interchange from any  
11 direction even if the interchange is built on a curving expressway,  
12 and the interchange would very inexpensive to build when compared  
13 to the cost to build a conventional interchange, as the simplified  
14 design for a "T" interchange can built for approximately 20% to  
15 25% of the cost of a traditional interstate interchange thereby  
16 saving government transportation departments millions of dollars,  
17 additionally, the simplified "T" interchange design may only take  
18 up 20% to 25% of the space of a conventional expressway freeway  
19 interchange, thereby saving money and land for other uses.

20

21 12. (Previously presented) The simplified "T" interchange design of  
22 claim 11 including an exit ramp from said first road surface  
23 connecting onto said third road surface.

24

1       13. (Previously presented) The simplified "T" interchange design of  
2       claim 11 including an exit ramp from said third road surface  
3       connecting onto said first road surface.

4

5       14. (Currently amended) The simplified "T" interchange design of  
6       claim 11 including a traffic signal ,or stop sign located at ~~the~~  
7       said terminated end of said third road surface substantially where  
8       said third road surface meets said exit ramp of said second road  
9       surface.

10

11      15. (Currently amended) The simplified "T" interchange design of  
12       claim 11 including a traffic signal ,or stop sign located ~~at the~~  
13       ~~end of said exit ramp~~ substantially where said exit ramp from said  
14       second road surface meets said terminated end of said third road  
15       surface.

16

17      16. (Canceled)

18

19      17. (Previously presented) The simplified "T" interchange design of  
20       claim 11 including an "up ramp" on said first surface originating  
21       at the ground level of said interchange location, said "up ramp"  
22       rising to meet the top of said bridge; and, a "down ramp"  
23       originating at said top of said bridge, said "down ramp"  
24       terminating at said ground level of said interchange location.

1       18. (Currently amended) The simplified "T" interchange design of  
2       claim 11 wherein said bridge is an arched bridge with Brownstone  
3       color & texture that is similar to native brownstone located  
4       Bayfield County Wisconsin;

5                 thereby providing a design that would ~~be very attractive~~ and  
6       ~~could~~ be a land mark and ~~could be referred to as~~ "a gateway" to the  
7       local national park and Apostle Islands; additionally an arched  
8       brownstone bridge could be designed to look as if it were built  
9       hundreds or even a thousand years ago similar to Roman Bridges  
10      built in Europe more than a thousand years ago; alternately other  
11      locations could have bridge designs with stone looks that are  
12      native to their locations.

13

14       19. (Canceled)

15       20. (canceled)

16

17       21. (Currently amended) The simplified "T" interchange design of  
18       claim 4 including a traffic signal ,or stop sign located at said  
19       terminated the end of said third road surface substantially where  
20       said terminated end of said third road surface meets said exit ramp  
21       of said second road surface.

22

23       22. (Currently amended) The simplified "T" interchange design of  
24       claim 4 including a traffic signal ,or stop sign located ~~at the~~

1   ~~end of said exit ramp~~ substantially where said exit ramp from said  
2   second road surface meets said terminated end of said third road  
3   surface.

4  
5   23. (Previously presented) The simplified "T" interchange design of  
6   claim 4 including an exit ramp from said first road surface  
7   connecting onto said third road surface.

8  
9   24. (Previously presented) The simplified "T" interchange design of  
10   claim 4 including an exit ramp from said third road surface  
11   connecting onto said first road surface.

12  
13   25. (Previously presented) The simplified "T" interchange design of  
14   claim 4 including an "up ramp" on said first surface originating at  
15   the ground level of said interchange location, said "up ramp"  
16   rising to meet the top of said bridge; and, a "down ramp"  
17   originating at said top of said bridge, said "down ramp"  
18   terminating at said ground level of said interchange location.

19  
20   26. (Currently amended) The simplified "T" interchange design of  
21   claim 6 including a traffic signal , or stop sign located at the end  
22   of said third road surface substantially where said terminated end  
23   of said third road surface meets said exit ramp of said second road  
24   surface; and

1        a traffic signal ,or stop sign located at the end of said exit  
2    ramp from said second road surface substantially where said exit  
3    ramp from said second road surface meets said terminated end of  
4    said third road surface.

 2/07/06